



MARSHALL STAR

Serving the Marshall Space Flight Center Community

March 2, 2006

NASA ships external fuel tank for next space shuttle mission



Lockheed Martin

The huge orange space shuttle external tank, designated ET-119, began its 900-mile journey Feb. 24 from the Michoud Assembly Facility near New Orleans to the Kennedy Space Center in Florida. The tank was scheduled to arrive March 1 at Kennedy for the next shuttle mission, STS-121. NASA managers are targeting a May launch window for Discovery's launch of seven astronauts to the International Space Station. The External Tank Project Office at the Marshall Center is responsible for the requirements, design, development, manufacture, assembly, testing and flight performance of the space shuttle external tank.

Local high school students 'shadow' Marshall Center engineers

By Lori Meggs

Marshall Center engineers opened the doors to future engineers for National Groundhog Job Shadow Day on Feb. 23. Fifty-four students from Huntsville-area high schools paired up for a day with engineers to experience what they do for NASA.

The event was part of a national effort to provide high school students a new perspective on their studies through hands-on learning and a one-day mentoring experience.

"It's great for us to see their enthusiasm in engineering," said Barry Musick, assistant to the director of Marshall's Engineering Directorate. "We want to show them how the subjects they are learning in school today relate to their careers. These students

See Shadow on page 2



Emmett Given/MSC

Wendell Colberg of Marshall's Materials and Processes Laboratory explains the external tank thermal protection system to Jontavious President, a junior at Johnson High School in Huntsville. President, a participant in Marshall's Job Shadow Day, holds a piece of Marshall-produced spray-on-foam insulation.

Retired Marshall atmospheric scientist receives Losey award

Retired Marshall Center scientist Otha "Skeet" Vaughan was presented the 2006 Losey Atmospheric Sciences Award in January by the American Institute of Aeronautics and Astronautics.

A former atmospheric scientist at the Marshall Center's Global Hydrology and Climate Center in Huntsville, Vaughan received the Losey award during the 44th Aerospace Sciences Meeting and Exhibit in Reno, Nev.

Vaughan conducted research in atmospheric physics and electricity at Marshall prior to his retirement from NASA in 1999.

Vaughan joined the U.S. Army Ballistic Missile Agency in Huntsville in 1956, taking part in the rocket development team led by

future Marshall Center director Dr. Wernher von Braun. Vaughan developed vehicle cooling system concepts for the Redstone and Jupiter rockets, and conducted initial flight performance studies for the Saturn series vehicles. He joined the newly formed Marshall Center in 1960, supporting development of the Saturn V rockets that eventually propelled the first American missions to the moon. He also led a team that set the design criteria for the Lunar Rover, the "moonbuggy" used during the last three moon exploration missions.

Vaughan is the author or coauthor of more than 90 published articles on subjects ranging from aerodynamic heating studies and missile flight test evaluations to atmospheric cloud physics research and studies of atmospheric electricity. He was awarded the Hermann Oberth award, named for the German rocketry pioneer, in 1999 for his accomplishments in atmospheric electricity research, most notably his discovery of "red sprites," phenomena that occur above severe thunderstorms.



Marshall retiree Otha "Skeet" Vaughan, left, is presented the 2006 Losey Atmospheric Sciences Award by Roger Simpson, president of the American Institute of Aeronautics and Astronautics, during the recent Aerospace Sciences Meeting and Exhibit in Reno, Nev.

Vaughan, a retired U.S. Air Force reservist with 27 years of service, is married to the former Betty Frances McCoy of Atmore, Ala.

Named for Army meteorologist Capt. Robert M. Losey, the first U.S. officer to die in World War II, the Losey award recognizes outstanding contributions to the atmospheric sciences and meteorology.

Shadow

Continued from page 1

represent our future and will be the ones carrying out NASA's exploration goals."

Students observed Marshall engineers working on returning the space shuttle to flight and developing the new Crew Launch Vehicle — the agency's future launch vehicle system.

"It's very interesting to see inside Marshall's efforts for the space program," said Mary Kate Esslinger, a junior at Columbia High School in Huntsville, who participated in Job Shadow Day. "I think it's fascinating how engineers are using models from the past Apollo days to create the new vehicle that will go to the moon."

Job Shadow Day is a collaborative effort among Junior Achievement of Northern Alabama, the Chamber of Commerce of Huntsville/Madison County, area public and private schools and area businesses. Nationwide, the Job Shadow Program reaches over one million students every February.

The writer, an ASRI employee, supports the Public and Employee Communications Office.



Marshall Center structural materials engineer Ken Cooper, left, shows Jaimie Kell, a senior at Buckhorn High School in Madison County, who participated in Job Shadow Day, a "self-mask" made with a wax-jet fabrication system in Marshall's Rapid Prototyping Lab. Rapid prototyping is the process of quickly developing one-of-a-kind models or prototypes for testing and evaluation.

"Encouraging explorers of tomorrow"



Emmett Given/MSFC

NASA astronaut and U.S. Air Force Col. Jim Halsell, seated at left, and Jim Carter, director of Marshall's Office of Center Operations, discuss the importance of learning math and science with students at Broadmoor Middle School in Shreveport, La. Halsell and Carter visited the Shreveport area Feb. 21-22 to help kick off the local NASA Explorer School Program. The program is a three-year partnership between schools and NASA to foster an interest in science and math and encourage careers in space exploration.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue is 4:30 p.m. Thursday.

Miscellaneous

Trundle bed w/mattress, \$50; baby stroller, \$35. 603-3558
 Chrome 16x8 wheels, 5x4.75 bolt pattern, \$400; Motegi wheels, 17x7, gunmetal, fits Accord, \$300. 851-8085
 Queen bed w/mattress set, contemporary brass, \$500. 533-9683
 Christmas tree, 8.5', \$50; Pioneer Elite rear-projection TV, 50", \$350 firm. 679-1681
 2003 Epiphone Casino, Sunburst w/hardshell case, rarely played, mint condition, \$570. 746-9080
 Pugs, AKC, 4F/3M, fawn w/black masks, ready March 4, \$450. 882-2037
 Nike Shox TL 3, red/black, size 6.5, new, \$70. 256-533-5942
 Sears Kenmore refrigerator, side-by-side, in-door ice and water, \$500. 256-289-0930
 Motorola Bluetooth headset w/charger & manual, \$25; CompUSA Bluetooth dongle adapter for computer, w/software, \$15. 429-8534
 Chrome wheels, 16x8, 5x4.75 bolt pattern, \$400; Montegi wheels, gunmetal w/polished tip, fits Accord, \$300. 851-8085
 Jack Russell Terrier, 5-1/2 months old, has papers, training crate, \$50. 256-665-3422
 Ladies bowling outfit, 10 & 11 lb. balls, shoes and bag, used once, make offer. 837-1774
 Rickenbacker 12-string, \$1,700; Hofner hand-made 500/2

Club Bass — No. 85 of 100 made, \$1,600. 303-3702
 Safety First tub-side bath seat, \$10; Kolcraft Tot 2 rider walker, \$20; Playskool step/walker, \$10. 651-7640
 Framed Challenge Traditions Continue the American Adventure poster, very large, \$100. 536-5132
 Natural gas heater, 18,000 BTU, at your price. 539-0263
 Toshiba TV, 36", must pick up, \$250. 829-0285
 Titleist 975J driver, mint, Fujikura factory shaft, with head cover. 256-506-3236
 Peek-a-Poo, 1 yr. old, house broken, moving must sell, \$150. 256-694-0735
 Aquarium, 150 gallon, stand, lights, filters and heater, \$600. 256-931-6954
 GE Profile Arctic side-by-side refrigerator, 3 yrs. old, white, ice/water/light in door, \$1,000. 683-9916

Vehicles

2004 Chrysler Sebring convertible, gold, 29K miles, 5K miles remaining on warranty, \$15,900. 652-5177
 2005 Toyota Camry LE, V6, 6K miles, ABS, JBL stereo, \$18,400. 881-3612
 1995 Cadillac Concours DeVille, loaded, leather, black, tinted windows, rims, \$3,000. 520-2802/Ron
 1994 Lexus LS400, 123.7K miles, pearl white/tan leather, \$9,500. 533-7234
 Viper Cobra Bass boat, 150EFI, dual console, new trolling motor, \$9,600. 679-3430
 1974 Jeep CJ5, Chevy 350 motor, new TH350 automatic transmission, \$1,500. 683-9364
 1996 Ford Contour, 90K miles, needs body work (hood/hood support, light assembly) make offer. 883-1003
 1997 Mazda B2300SE, 4-cyl., auto, bed liner, bed cover, 58K miles, \$6,950. 534-8325
 1999 Ford Explorer XLS, 4x4, 4-door, towing package, privacy package, 82.4K miles, \$7,300. 353-3229
 1999 Camry LE, beige, 147K miles, recent tune-up, maintenance records available, \$5,500. 256-773-8592 after 6 p.m.
 2000 Nissan Frontier, 4-door, crewcab, silver, automatic, CD/cassette, 101K miles, options, remote, \$9,900. 880-9025
 1999 Ford Expedition XLT, black, V8, auto, 1WD, 139K

miles, third seat, \$8,500. 679-9895

2004 Lincoln Aviator, RWD, 25K miles, white, factory DVD entertainment system, \$27,500. 694-1112

2002 Dodge Ram 1500, 4x4 SLT, silver, automatic, 102K miles, \$14,800. 256-891-1073

2001 Jayco travel trailer, 30', queen, 2 bunks, a/c, fridge, heater, stove/microwave, awning, sleeps 8, \$11,000. 859-0729

Wanted

Elliptical fitness trainer, reasonably priced. 256-777-3221

Instrumentation Division retirees to meet March 7

Astrionics Lab Instrumentation Division retirees and friends will meet at 11 a.m., Tuesday, March 7, at the Redstone Golf Course Restaurant. For more information, call Tom Escue at 232-1549.

MARS Spring Dinner Dance to be held April 8

MARS Spring Dinner Dance will be held at 6:30 p.m., Saturday, April 8, at the Von Braun Center. Tickets are \$25 for MARS members and \$30 for nonmembers. The last day to purchase tickets is April 4. Contact Jerry Maxwell at 544-1954 for more information.

Marshall celebrates Black History Month



Marshall and other Redstone Arsenal organizations marked Black History Month on Thursday, Feb. 23, with a program built on this year's national theme, "Celebrating Community: A Tribute to Black Fraternal, Social and Civic Institutions." At left, Dr. Robert R. Jennings, president of Alabama A&M University in Huntsville, speaks to attendees. The program commemorated more than 100 years of service by black organizations and civic institutions. A tribute was made to the recently deceased civil rights icons Rosa Parks, Vivian Malone Jones and Coretta Scott King. About 380 people attended the program.

Doug Stoffer/MSFC

Shuttle Safety Hotline offers way to report potential flight safety concerns

A new Shuttle Safety Hotline for reporting potential flight safety concerns is online at <http://sma.jsc.nasa.gov/sirma/hotline/>. The Web site offers ways for Marshall team members to discuss and resolve shuttle safety concerns. Employees should try to first resolve the issue themselves and then discuss concerns with management or individuals identified on the Web site. Once a concern is entered, it will be addressed and

an analysis made to see what program action is appropriate. If applicable, the concern will be entered into the Shuttle Integrated Risk Management Application database for tracking. There is an option to document shuttle safety concerns anonymously directly into the Web site's database. It also is available through the NASA Safety Reporting System on Inside Marshall.



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